LYTEHILYTEUSERGUIDE

Lyte Industries (Wales) Ltd

LYTE
LADDERS | TOWERS

LYTE HILYTE 500

The maximum safe working load for the tower is 950kg. This is to include the tower self weight and ballast.
The maximum capacity of each working level is 275kg, regardless of the number of decks.
The individual decks have a maximum capacity of 275kg.

All our user guides are compiled in order to give the user step by step instructions to ensure the product is assembled correctly and to the latest safety standard for use when working at height.

The law requires that anyone assembling and using a tower be competent to do so and should also have a copy of the correct manufacturer's instructions.

If you require further information on this please see the PASMA Operators Code of Practice or call us on ***01792 796666***.

www.lyteladders.co.uk

PLEASE READ THIS CAREFULLY

The Hilyte 500 towers are light-weight mobile scaffold towers for use indoor and outdoor. All of the Lyte Industrial Towers are made and tested to Class 3 in accordance with BSEN1004:2004 (Class3) by The British Standards Institute. These instructions take into account the latest regulations, guidance and all product standards and is intended to give guidance on the best practice for the assembly and dismantling of access towers. These instructions must always be used in conjunction with a suitable and sufficient Risk Assessment relative to the project. Current regulations require that any person assembling and using towers must be competent and qualified to do so. For full information on the correct assembly and use of mobile access towers, consult the PASMA Operators Code of Practice (Revision 12.6). Contact PASMA at: PASMA, PO Box 26929, Glasgow, G3 9DR.

Safety Notes

Before assembly

1. Ensure that the instruction guide has been read and understood by anyone using the equipment. If in doubt contact your supplier.
2. Lyte Industries recommend two competent persons are used to build the range of Lyte Towers. On towers above 4mtrs it is an ESSENTIAL requirement that at least two persons are used.
3. Always ensure that the necessary components are available and inspected for damage and wear prior to assembly. DAMAGED OR INCORRECT COMPONENTS SHALL NOT BE USED.
4. Ensure the ground level is suitably firm and clear of obstruction.
5. All tower frames must be lifted and lowered from the inside of the tower footprint. It is acceptable to lift frames with the aid of a rope, secured with a reliable knot.
6. The life of tower components will be increased if proper care is taken of them during handling, assembling, transportation and storage. All components should be inspected after storage and transport.
7. Stabilisers shall always be fitted when specified.
8. Mobile access towers are not designed to be lifted or suspended.

LYTE RECOMMEND ALL TOWERS ARE TIED IN SECURELY WHERE POSSIBLE

9. The location of the mobile access tower shall be checked to prevent hazards during assembly, dismantling, moving and safe working with respect to:
    a) Ground conditions;
    b) Level and slope;
    c) Obstructions;
    d) Wind conditions.
10. All parts, auxiliary tools and safety equipment (ropes, etc.), for assembling the mobile access tower should be checked and available on site.

Whilst assembling a tower

1. Outdoor freestanding towers must not exceed a platform height of 8.2m, for indoor use the maximum platform height is 12.2m. To ensure maximum stability is achieved, stabilisers or outriggers must be fitted at the first available opportunity, usually after the first module is complete. The quantity schedule overleaf illustrates the correct stabiliser units required for each platform height.
2. Always take into account the ground conditions i.e. are they capable of withstanding the loads imposed by the scaffolding.
3. Ensure the tower is level and vertical.
4. Ensure that the tower is not overloaded and that working loads are adhered to.
5. The Work at Height Regulations 2005 state that all platforms – from which a person is possible to fall a distance liable to cause personal injury – must be fitted with guardrails at a minimum height of 950mm above the platform itself. In addition to this, current regulations require intermediate guardrails be fitted to leave a gap no more than 470mm.
6. Toe boards are mandatory at all places of work from which it is possible that tools, equipment or other material may fall and is liable to cause personal injury. Their use on intermediate or rest platforms is not compulsory unless a risk assessment identifies a risk.

Whilst using the tower

1. Do not exceed the safe working load of the tower.
2. Ensure that castors are locked and that the Tower is both level and vertical.
3. Ensure that environmental changes influence safe use of the mobile access tower
4. The platform height of the tower must not be extended using ladders, boxes or other devices.

The Beaufort Scale

Beaufort Scale	Description	Air Speed	Action
0	Calm, smoke rises easily	1mph	None required
<3	Leaves & small twigs in constant motion, wind extends light flag	12mph	No immediate action required
4	Moderate breeze, small branches move	17mph	Cease work
5	Strong breeze, large Branches bend	25mph	Tie tower to a rigid structure
>6	Walking progress impeded	40mph	Dismantle tower if such conditions are expected

Whilst using the tower continued

5. If a tower is left unattended, it must be secured against unauthorised usage or adverse weather conditions.
6. Adjustable legs are intended only to level the tower and never to gain additional tower height.
7. For linking towers or special applications, always consult your supplier.
8. Care must be taken when working on the tower as there can be many factors that can contribute to overturning of the mobile access tower, such as:
    - Using power tools, jet washers or other tools that impose side loads.
    - Horizontal loads caused by use; for example, as a result of work on an adjacent structure;
    - Additional wind loads (tunnelling effect of open-ended buildings, uncladded buildings and on building corners).

The maximum side load on a freestanding tower with stabilisers is 20Kgs.

9. It is not permissible to attach bridging between a tower and a building.
10. Never jump onto platforms.
11. Towers used outdoors shall, wherever possible, be secured to a building or other structure.

Before moving a tower

1. Towers should only be moved with the utmost caution. Before moving, ensure the route is clear of any obstructions, both at ground level and overhead (particularly overhead cables).
2. Never attempt to move a tower with people or materials still on it.
3. Ensure the tower height is reduced to 4m when stabilisers are in the correct position. Reduce tower to 2m when stabilisers are in the incorrect position before moving.
4. Stabilisers should be left fitted in position, though raised no more than 25mm from the ground.
5. Move the tower only by applying manual effort, pushing at the base of the tower.
6. NEVER MOVE A TOWER IF WIND LEVELS ARE ABOVE 3 ON THE BEAUFORT SCALE.

After moving the tower

1. Always inspect the tower after moving and before use.
2. Always check that the tower is square and level with the use of a spirit level
3. Always refer to the instructions in this guide.
4. Never throw equipment from the tower, either lower it with a rope or by hand.

Stabilisers

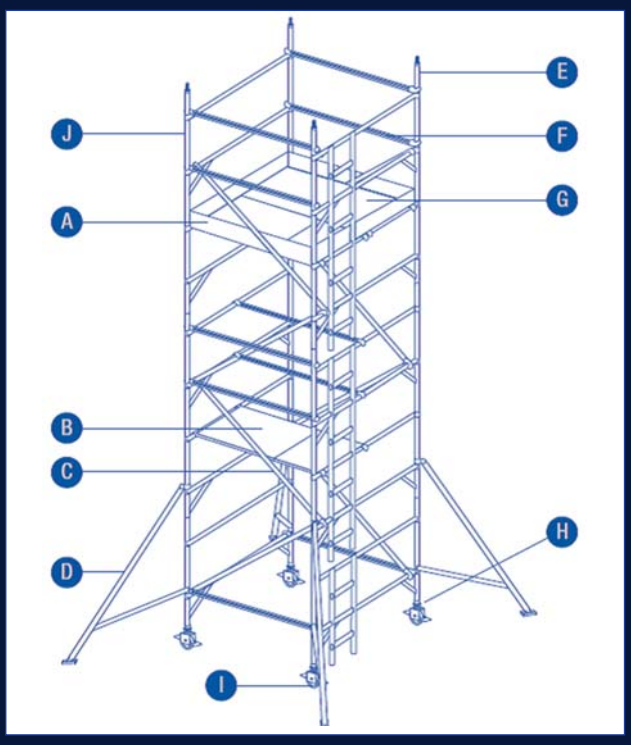
STABILISERS OR OUTRIGGERS SHALL ALWAYS BE FITTED WHEN SPECIFIED.

- When fitting stabilisers ensure they're as low as possible while providing the largest available footprint.
- Fit top boom to the frame, tighten enough so it won't detach but can still be adjusted.
- Now fit the bottom boom similar to the top one
- Adjust top and bottom booms ensuring the stabiliser foot is in firm contact with the ground.
- For telescopic stabilisers, remove locking pin and extend the inner tube to desired length then secure the locking pin in place. It can now be fitted in the same manner as the standard stabiliser.

Maximum Safe Working Load

The maximum safe working load for the tower is 950kg. This is to include the tower self weight and ballast.
The maximum capacity of each working level is 275kg, regardless of the number of decks. The individual decks have a maximum capacity of 275kg.

A - Toe Board Set
B - Hatch Deck
C - Diagonal Brace
D - Stabiliser
E - 2, 3, 4 Rung Ladder Frame
F - Horizontal Brace
G - Standard Deck
H - Adjustable Leg
I - Castor
J - 2, 3, 4 Rung Span Frame



Components for

LYTE INDUSTRIAL TOWER	WEIGHT
150mm Locking Castor	3.54kg
Adjustable Leg	0.98kg
2 Rung Span Frame DW	4.55kg
2 Rung Span Frame SW	3.45kg
2 Rung Ladder Frame DW	4.59kg
2 Rung Ladder Frame SW	4.20kg
3 Rung Ladder Frame DW	8.80kg
3 Rung Ladder Frame SW	8.95kg
3 Rung Span Frame DW	6.79kg
3 Rung Span Frame SW	5.10kg
4 Rung Ladder Frame DW	11.93kg
4 Rung Ladder Frame SW	9.90kg
4 Rung Span Frame DW	9.05kg
4 Rung Span Frame SW	7.40kg
1.8m Standard Deck	12.62kg
2.5m Standard Deck	17.22kg
3.2m Standard Deck	21.63kg
1.8m Hatch Deck	13.40kg

LYTE INDUSTRIAL TOWER	WEIGHT
2.5m Hatch Deck	17.71kg
3.2m Hatch Deck	22.15kg
1.8m Horizontal Brace	2.05kg
2.5m Horizontal Brace	2.50kg
3.2m Horizontal Brace	2.96kg
2.1m Diagonal Brace	2.20kg
2.7m Diagonal Brace	2.70kg
3.4m Diagonal Brace	3.25kg
1.8m Side Toeboard	2.90kg
2.5m Side Toeboard	3.54kg
3.2m Side Toeboard	4.18kg
1.2m End Toeboard	1.94kg
0.85m End Toeboard	1.15kg
Standard Stabiliser	3.80kg
Telescopic Stabiliser	8.20kg
Large Telescopic Stabiliser	8.40kg

Assembly Checklist

These checks must be completed directly after the Tower has been built and before each consecutive use.

- ☐ Always inspect components before assembling the tower. Any damaged components should not be used, refer to supplier or scrap depending on the damage.
- ☐ Always inspect the tower before using.
- ☐ Ensure that the tower is upright and square.
- ☐ Ensure castors are locked.
- ☐ Ensure legs are correctly adjusted.
- ☐ Ensure all horizontal braces and platforms are level.
- ☐ Ensure stabilisers are fitted as specified in the instruction manual.
- ☐ Ensure platforms are correctly located and anti-lift locks are on.
- ☐ Ensure all guardrails are in place.
- ☐ Ensure Toeboards are correctly fitted as illustrated in the instruction manual.
- ☐ Always check whether the structure assembly is still correct and complete.
- ☐ Check that no environmental changes have influenced the safe use of the mobile tower.
- ☐ At no time is it acceptable to extend the height of the platform by use of ladders, boxes or other devices.

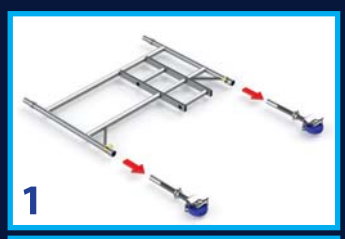
Always refer to this checklist before and after assembly of the tower.

If in doubt about any application consult your supplier for advice.

PLEASE REMEMBER: A thorough risk assessment must be carried out prior to any work being carried out at height.

4.2m Tower Build

1: Fit leg and castor assembly into the 2 rung ladder frame, repeat with the 2 rung span frame.

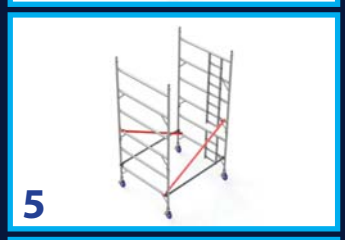


2: Fit the 1st horizontal brace on frame horizontal at Ladder side then the 2nd on the upright as shown.

3: Attach both horizontal braces to the span frame as shown in the illustration. When complete ensure the tower is square and level by using a spirit level.

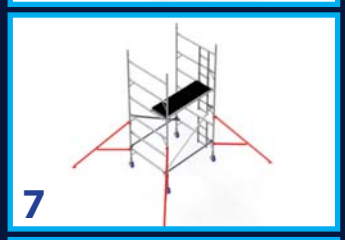
4: Fit 4 rung ladder and span frames, ensure the circlips are locked.

5: Fit 2 diagonal braces in opposing direction from the 1st rung to the 3rd rung as shown.



6: Place platform on the 4th rung ensuring hatch is to the ladder end and it opens outwards. Ensure wind clips are locked.

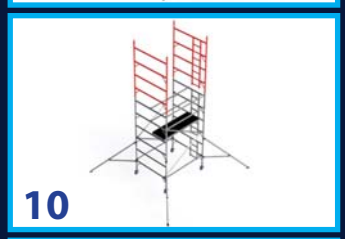
7: Fit stabilisers ensuring that the maximum footprint is achieved.



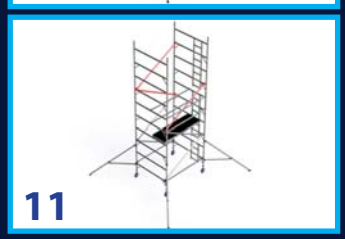
8: Fit another 2 diagonal braces diagonally opposed from the 3rd rung to the 5th rung.

9: Using the 3t method of assembly, fit horizontal bracing on the 5th and 6th rungs above the hatch platform.
The platform is now safe to stand on.

10: Fit 4 rung ladder and span frames ensuring the circlips are locked.



11: Fit 2 diagonal braces diagonally opposed from the 5th rung to the 7th and another from the 7th to the 9th

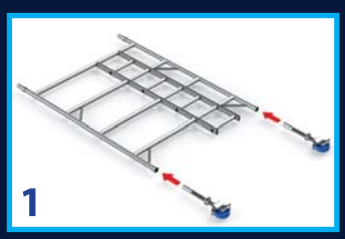


12: Place standard and hatch platforms on the 8th rung, ensure that the hatch is positioned to the ladder end and opens to the outside edge. Check the platforms are secure and level then lock windclips.
Using the 3t method of assembly, fit horizontal bracing on the 9th and 10th rungs.
The platform is now safe to stand on.

13: Fit toeboards then carryout final inspection before use.

3.2m Tower Build

1: Fit leg and castor assembly into the 4 rung ladder frame, repeat with the 4 rung span frame.



2: Fit the 1st horizontal brace on frame horizontal at ladder side then the 2nd on the upright as shown.

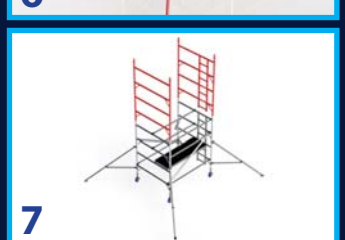
3: Attach both horizontal braces to the Span frame as shown in the illustration.

4: Fit 2 diagonal braces in opposing direction from the 1st rung to the 3rd rung as shown.

5: Place platform on the 2nd rung ensuring hatch is to the ladder end and it opens outwards. Ensure wind clips are locked.
Using the 3t method of assembly, fit horizontal bracing on the 3rd and 4th rungs above the hatch platform. The platform is now safe to stand on.

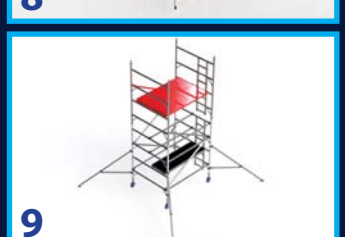
6: Fit stabilisers ensuring that the maximum footprint is achieved.

7: Fit 4 rung ladder and span frames, ensure the circlips are locked.



8: Fit 2 diagonal braces diagonally opposed from the 3rd rung to the 5th rung. Fit another diagonal brace from the 5th rung to the 7th.

9: Place standard and hatch platforms on the 6th rung, ensure that the hatch is positioned to the ladder end and opens to the outside edge. Check the platforms are secure and level then lock the wind clips.



10: Using the 3t method of assembly, fit horizontal bracing on the 7th and 8th rungs.
The platform is now safe to stand on.

11: Fit toeboards then carryout final inspection before use.

12: In order to dismantle the mobile access tower please reverse the erection instruction.

If you have any questions or need help assembling your tower please call us on ***01792 796666***

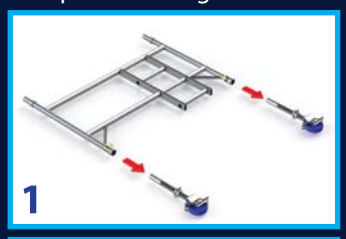
Hilyte 500

1.7m Base Out*

*First stage of configuration

This base out will allow the operative to achieve 1.7m, 3.7m, 5.7m 7.7m, 9.7m and 11.7 platform heights

1: Fit leg and castor assembly into the 2 rung ladder frame, repeat with the 2 rung span frame.



2: Fit the 1st horizontal brace on frame horizontal at ladder side then the 2nd on the upright as shown.

3: Attach both horizontal braces to the span frame as shown in the illustration.

4: Fit 3 rung ladder and span frames, ensure the circlips are locked.

5: Fit 2 diagonal braces in opposing direction from the 1st rung to the 3rd rung as shown.

6: Place platform on the 3rd rung ensuring hatch is to the ladder side and it opens outwards. Check the platform is secure and level then lock the wind clips.

7: Fit stabilisers ensuring that the maximum footprint is achieved.

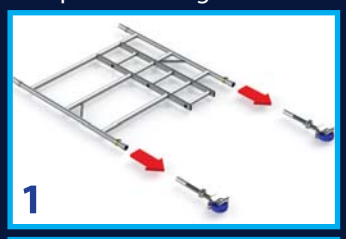
8: Using the 3t method of assembly, fit horizontal bracing on the 4th and 5th rungs. The platform is now safe to stand on.

2.7m Base Out*

*First stage of configuration

This base out will allow the operative to achieve 2.7m, 4.7m, 6.7m 8.7m, 10.7m and 12.7 platform heights

1: Fit leg and castor assembly into the 3 rung ladder frame, repeat with the 3 rung span frame.



2: Fit the 1st horizontal brace on frame horizontal at ladder side then the 2nd on the upright as shown.

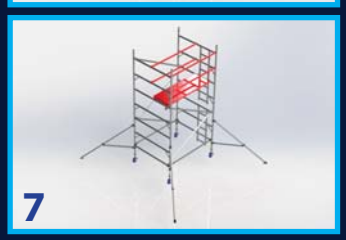
3: Attach both horizontal braces to the span frame as shown in the illustration.

4: Fit 2 diagonal braces in opposing direction from the 1st rung to the 3rd rung as shown. Fit 4 rung ladder and span frames, ensure the circlips are locked.

5: Fit Stabilisers ensuring that the maximum footprint is achieved. May be useful to add another deck for assembly purposes only.

6: Fit another 2 diagonal braces diagonally opposed from the 3rd rung to the 5th rung.

7: Place platform on the 5th rung ensuring hatch is to the ladder end and it opens outwards. Check the platform is secure and level then lock the wind clips. (Please note you may need to use a platform on the 1st rung) Using the 3t method of assembly, fit horizontal bracing on the 6th and 7th rungs. The platform is now safe to stand on.



Toeboard Fitting

1: Deployed
2: Folded

Toeboards fitted as illustrated

01792 796666
sales@lyteladders.co.uk
www.lyteladders.co.uk

LYTE
LADDERS | TOWERS

Component Schedule - based on 3T specification (Aluminium toeboard sets available)

Single Width	Internal or external work (m)															Internal work only (m)							
Platform Heights	1.2	1.7	2.2	2.7	3.2	3.7	4.2	4.7	5.2	5.7	6.2	6.7	7.2	7.7	8.2	8.7	9.2	9.7	10.2	10.7	11.2	11.7	12.2
150mm dual locking castor	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Adjustable leg	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
2 rung span frame	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1
2 rung ladder frame	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1
3 rung span frame	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-
3 rung ladder frame	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-
4 rung span frame	1	-	1	1	2	1	2	2	3	2	3	3	4	3	4	4	5	4	5	5	6	5	6
4 rung ladder frame	1	-	1	1	2	1	2	2	3	2	3	3	4	3	4	4	5	4	5	5	6	5	6
1.8m - 2.5m hatch deck	1	1	1	1	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6
1.8m - 2.5m horizontal brace	6	6	6	6	10	10	10	14	14	14	14	18	18	18	18	22	22	22	22	26	26	26	26
2.1m - 2.7m diagonal brace	2	3	3	5	5	7	7	9	9	11	11	13	13	15	15	17	17	19	19	21	21	23	23
1.8m - 2.5m side toeboard	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Single width toeboard end	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Standard stabiliser	-	-	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Telescopic stabiliser	-	-	-	-	-	-	-	4	4	4	4	-	-	-	-	4	4	4	-	-	-	-	-
Large telescopic stabiliser	-	-	-	-	-	-	-	-	-	-	-	4	4	4	4	-	-	-	4	4	4	4	4

Double Width	Internal or external work (m)															Internal work only (m)							
Platform Heights	1.2	1.7	2.2	2.7	3.2	3.7	4.2	4.7	5.2	5.7	6.2	6.7	7.2	7.7	8.2	8.7	9.2	9.7	10.2	10.7	11.2	11.7	12.2
150mm dual locking castor	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Adjustable leg	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
2 rung span frame	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1
2 rung ladder frame	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1
3 rung span frame	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-
3 rung ladder frame	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-
4 rung span frame	1	-	1	1	2	1	2	2	3	2	3	3	4	3	4	4	5	4	5	5	6	5	6
4 rung ladder frame	1	-	1	1	2	1	2	2	3	2	3	3	4	3	4	4	5	4	5	5	6	5	6
1.8m - 2.5m hatch deck	1	1	1	1	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6
1.8m - 2.5m Standard deck	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1.8m - 2.5m horizontal brace	6	6	6	6	10	10	10	14	14	14	14	18	18	18	18	22	22	22	22	26	26	26	26
2.1m - 2.7m diagonal brace	2	3	3	5	5	7	7	9	9	11	11	13	13	15	15	17	17	19	19	21	21	23	23
1.8m - 2.5m side toeboard	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Double width toeboard end	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Standard stabiliser	-	-	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	-	-
Telescopic stabiliser	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	4	4	4	-	-	-	-	-
Large telescopic stabiliser	-	-	-	-	-	-	-	-	-	-	-	-	4	4	4	-	-	-	4	4	4	4	4